



Product Data Sheet

AMBERLITE™ BD10DRY Ion Exchange Resin

Industrial-grade, Strong Acid Cation Exchanger

Description

AMBERLITE™ BD10DRY Ion Exchange Resin is a strong acid cation resin functionalized with sulfonic acid and supplied in the dry form.

AMBERLITE™ BD10DRY has been specially developed to remove catalyst, soap, and glycerol traces from biodiesel, greatly simplifying its purification. It is a ready-to-use resin; it may be used without any special pretreatment.

Applications

- Biodiesel purification

Typical Properties

Physical Properties	
Type	Strong acid cation
Functional Group	Sulfonic acid
Physical Form	Dark brown, spherical beads
Chemical Properties	
Ionic Form as Shipped	H ⁺
Concentration of Acid Sites †	≥ 4.90 eq/kg
Volatiles	≤ 5%
Particle Size §	
< 300 µm	≤ 5%
Swelling (in solvent)	
Biodiesel	6 – 15% (depending on the biodiesel)
Methanol	130%
Water	150%
Density	
Shipping Weight	870 g/L

† Dry Weight Capacity ≥ 4.90 eq/kg

§ For additional particle size information, please refer to the [Particle Size Distribution Cross Reference Chart](#) (Form No. 177-01775).

Suggested Operating Conditions

Maximum Operating Temperature	120°C (250°F)
Bed Depth, min.	600 mm (2.0 ft)
Pressure Drop, max.	1 bar (15 psig) across the bed
Operating Flowrate	1 – 5 BV*/h

* 1 BV (Bed Volume) = 1 m³ solution per m³ resin or 7.5 gal per ft³ resin

Application Information

1 L of AMBERLITE™ BD10DRY Ion Exchange Resin will swell to a volume of approximately:

- 1.06 – 1.15 L in biodiesel,
- 2.3 L in methanol, and
- 2.5 L in water

This should be factored into the column design in order to leave sufficient freeboard.

Product Stewardship

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Please be aware of the following:

- **WARNING:** Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

Have a question? Contact us at:

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